

In the Claims

1. (Currently amended) A process for improving delivery reproducibility of a cyclosiloxane precursor to a chemical vapor deposition reactor and reducing water in the cyclosiloxane to a level that minimizes premature polymerization in transport to the chemical vapor deposition reactor, comprising the steps of:
 - (a) providing a cyclosiloxane precursor;
 - (b) treating ~~said cyclosiloxane precursor~~ and contacting said cyclosiloxane precursor with at least one adsorbent bed material that has an affinity for water and ~~by reducing the concentration of water and~~ at least one impurity selected from the group consisting of acidic and basic impurities from said cyclosiloxane precursor for a sufficient time to reduce the water and impurities in the cyclosiloxane precursor to a level that minimizes premature polymerization; and separating a purified cyclosiloxane precursor from the at least one adsorbent bed material, to produce a purified cyclosiloxane precursor;
 - (c) vaporizing said purified cyclosiloxane precursor; and
 - (d) delivering vapor of said purified cyclosiloxane precursor to said chemical vapor deposition reactor, wherein treatment of the cyclosiloxane precursor functions to prevent or minimize premature polymerization of said cyclosiloxane precursor in the chemical vapor deposition reactor and associated delivery lines, ~~thereby improving and improves~~ delivery reproducibility of the cyclosiloxane precursor.
2. (Cancelled).
3. (Previously presented) The process according to claim 1, wherein said at least one impurity is acidic.
4. (Previously presented) The process according to claim 1, wherein said at least one impurity is basic.
5. (Original) The process according to claim 1, wherein said cyclosiloxane precursor comprises the formula $[RR'Si-O]_n$, wherein each of R and R' is same or different and independently selected from the group consisting of hydrogen, hydroxyl, C₁-C₈ alkyl, C₁-C₈ alkoxy, C₁-C₈ alkene, C₁-C₈ alkyne, and C₁-C₈ carboxyl; and n is from 2 to 8.

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6. (Original) The process according to claim 1, wherein the cyclosiloxane precursor is selected from the group consisting of polyhedral oligomeric silsesquioxanes (POSS), octamethylcyclotetrasiloxane (OMCTS), hexamethylcyclotetrasiloxane (HMCTS), tetramethylcyclotetrasiloxane (TMCTS), and mixtures thereof.
7. (Original) The process according to claim 1, wherein the cyclosiloxane precursor is 1,3,5,7-tetramethylcyclotetrasiloxane.
- 8.-9. (Cancelled).
10. (Currently amended) The process according to claim 1 9, wherein said adsorbent bed material is selected from the group consisting of: silica gel, molecular sieves, aluminum oxide, carbon, calcium oxide, calcium chloride, sodium sulfate, magnesium perchlorate, phosphorus pentoxide, silicide, metals, and metal hydrides.
11. (Currently amended) The process according to claim 10 9, wherein the adsorbent bed material is calcium oxide.
12. (Currently amended) The process according to claim 10 9, wherein the adsorbent bed material is calcium hydride.
13. (Currently amended) The process according to claim 10 9, wherein the adsorbent bed material comprises a combination of adsorbents.
14. (Currently amended) The process according to claim 10 9, wherein the cyclosiloxane precursor is further contacted with a second adsorbent bed material.
15. (Currently amended) The process according to claim 10 9, wherein said purified cyclosiloxane precursor is removed from said adsorbent bed material by distillation.
16. (Currently amended) The process according to claim 10 9, wherein said purified cyclosiloxane precursor is removed from said adsorbent bed material by decantation.

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17. (Currently amended) The process according to claim 10 9, wherein said purified cyclosiloxane precursor is removed from said adsorbent bed material by pump.
18. (Currently amended) The process according to claim 1, wherein said purified cyclosiloxane precursor comprises ~~less than~~ $< 0.001\%$ of the at least one impurity.
19. (Currently amended) The process according to claim 1, wherein said purified cyclosiloxane precursor comprises ~~less than~~ $< 0.00001\%$ of the at least one impurity.
20. (Cancelled).
21. (Previously presented) The process according to claim 1, wherein said purified cyclosiloxane precursor comprises less than 0.001% of water.
- 22- 46. (Canceled).